west virginia department of environmental remediation
Office of Environmental Remediation

VRP Project #:**15017**
Brownfield Site: Yes ☐ No ☒
Report Date: **3-8-16**

OFFICE OF ENVIRONMENTAL REMEDIATION
VOLUNTARY REMEDIATION PROJECT
SITE VISIT/INSPECTION REPORT

APPLICANT			LRS		
NAME: **Freedom Industries**			NAME: **Matt Ford**		LRS# **240**
ADDRESS: **1015 Barlow Drive**			ADDRESS: **533 N. Jefferson St., Suite 3**		
CITY: **Charleston**	STATE: **WV**	ZIP: **25311**	CITY: **Lewisburg**	STATE: **WV**	ZIP: **24901**
PHONE: (**304**)**720-2312**			PHONE: (**304**) **520-4260**		
CONTACT: Robert Johns, Spill Claim Plan Administrator					

LOCATION

FACILITY: **Freedom Industries**	STREET ADDRESS: **1015 Barlow Drive**	
CITY: **Charleston**	COUNTY: **Kanawha**	PHONE: ( )
DATE OF VISIT: **March 8, 2016**	TIME IN: **~ 1:00 pm**	TIME OUT: **~ 4:30 pm**

SITE STATUS: Abandoned ☒ Active ☐ | **UST's:** Existing ☐ Former ☒ | **SURFACE SOIL STAINING:** Yes ☐ No ☒

SURFACE WATER ON OR ADJACENT TO PROPERTY: Yes ☒ No ☐ | **EXISTING MONITORING WELLS:** Yes ☒ No ☐

Existing Structures Including Dimensions and Use: 1. Former/current office building (offices, small coal testing lab and storage) - ~125'L x ~85'W x ~30'H; 2. Garage/maintenance and vehicle storage building - ~225'L x ~55'W x ~20'H

Chemicals of Potential Concern: 4-methylcyclohexanemethanol (MCHM), propylene glycol phenyl ether (PPH), calcium chloride, ethylene glycol, glycerin, polychlorinated biphenyls (PCB's), lead, petroleum hydrocarbons, volatile organic compounds (VOC's) and semi-volatile organic compounds (SVOC's)

DRINKING WATER SOURCE: GW ☐ Public ☒ Other	**SURROUNDING LAND USE**: Residential ☒ Commercial ☒ Industrial ☐ Recreational ☐ Agricultural ☐ Other ☐
OTHER AREAS OF CONCERN:	

COMMENTS

On-site at Freedom Industries AST release site @ ~ 1300 hrs. Clear, sunny, temperature ~ 72°; SPSI workers on-site (SPSI employees include Gary Houseman, Lance Wilcox & Larry Gaffga) for slope preparation & grading work. Matt Ford & Kinder Tuckwiller of CORE also on-site. Meeting with Matt and SPSI to discuss revised slope & capping plan and schedule.

Excavator working at the bottom of the slope trying to prep area for clay cap, however, this area is so wet from natural drainage on the slope that "soil" in this area has consistency of pudding. Excavator has sunk approximately 5 feet into the mud and is currently stuck. Will have to use dozer to pull excavator out of mud. Upper portion of slope is also very unstable and is in danger of sloughing onto excavator and burying it even further. Based on the extremely unstable conditions in this area, rethinking entire slope & capping plan.

CORE received the geotechnical report today from Terracon from drilling and sampling work completed at the site on February 19, 2016. The report, titled, "Geotechnical Engineering Report - Embankment Fill Stability, Freedom Industry Site, Elk District, West Virginia", basically confirmed the conditions and issues that we were seeing today. The report indicated that based on the native overburden soil in the slope area (medium stiff to very stiff lean clay, very soft to soft silts and very loose to dense poorly graded and well graded sand) coupled with groundwater seepage and runoff during seasonal variations in rainfall, a 3:1 slope results in a global safety factor of only about 1 for the slope, indicating that a 3:1 slope would ultimately fail. The report recommended construction of a drilled pier wall between the toe of the slope and the top of the riverbank, which would retain the Area 4 slope in the event that the riverbank failed. A second option, though not recommended without further study, would be to move the toe of the slope a minimum of ten feet (10') back to the east (towards Barlow Drive), away from the river. With this option, failure of the riverbank slope would not immediately affect the stability of the Area 4 slope and corective measures would be possible. Since there is no budget for the construction of a pier wall, the immediate solution will be to reduce the Area 4 slope to less than 3:1 and construct a swale in this area

with minimal fill on top to reduce the chance for slippage. The terrace proposed mid-slope will also be eliminated; however these plans will be studied and discussed further in the coming week.

Patty Hickman and John Dempsey of WVDEP/DLR/OER arrived on-site ~ 1530 hrs - explained the current issues and discussed the tentative revised plans for the slope area. Excavator had been rescued by this time. Walked out to slope area to observe current conditions. Also drove dow to lower terrace (collection trench level) to observe toe of slope. Patty & John departed ~ 1600 hrs. Took pictures of current conditions.

Departed site ~ 1630 hrs.

A numbered list of photos taken during today's site visit follows, with the photos attached below:

1. Excavator stuck in mud at toe of slope.
2. Moving clay capping soil into place to be spread.
3. View of backfilling and capping progress - Area 3.
4. View of Areas 1B & 2 and capping material
5. View of southern side of slope area (Area 4).
6. Sump #8 at base of slope
7. Opened trench north of sump #8 and below former fire suppression system pump.
8. View of excavated area north of former fire suppression system pump (C&D debris excavated)
9. View of slope looking up towards Barlow Drive (to southeast)

Project Manager's Signature: _____ **Date:** 3-8-16

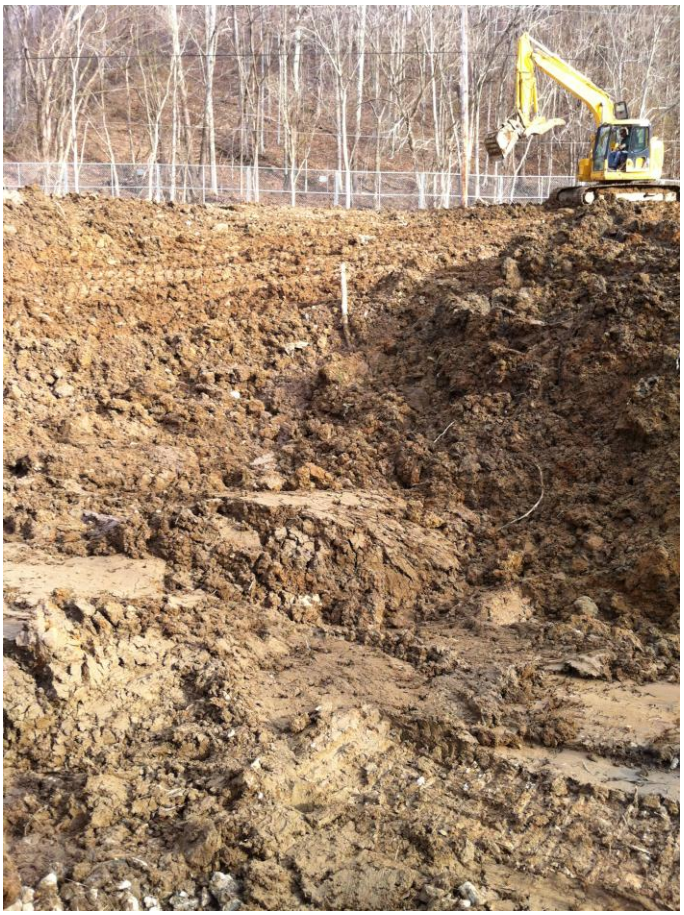
1.

3.

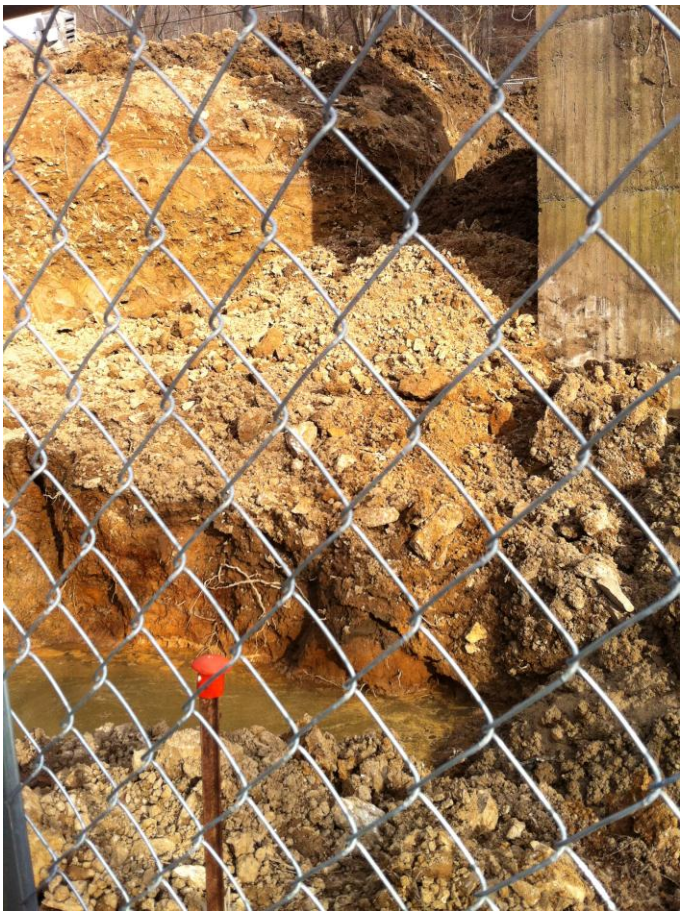
2.

4.

5.



7.



6.

8.

9.